

Table S1: Fermentation, assimilation of carbon sources, growth at different temperatures, growth in cycloheximide, and other physiological tests of 11 isolates belonging to the *Candida haemulonii* complex

	<i>C. haemulonii</i> (CBS5149, CBS5150, CNMCL4640,CBS6332)	<i>C. duobushaemulonii</i> (CBS 7798, 7799, 7800)	<i>Candida haemulonii</i> <i>var.vulnera</i> (CNMCL7239, CNMCL7462, CNMCL7256, CNMCL7073)
<b>Fermentation of</b>			
Glucose	+	+	+
Sucrose	+	+	+
Raffinose*	-	+	-
<b>Assimilation of</b>			
D-Glucose	+	+	+
D-Galactose	+	+	+
L-Sorbose*	-	+	-
D-Glucosamine	W	W	W
D-Ribose	V	W	W/D
D-Xylose	D	D	D
L-Arabinose	-	W	-
D-Arabinose	-	V	-
L-Rhamnose	+	W	+
Sucrose	+	+	+
Maltose	+	+	+
$\alpha\alpha$ -Trehalose	+	+	+
Methyl, $\alpha$ -D-glucoside	-	W	-
Cellobiose	-	V	-
Salicin	-	V	-
Arbutin*	-	+	-
Melibiose	-	V	-
Lactose	W	W	W
Raffinose	+	+	+
Melezitose	+	+	D
Inuline	-	+	W
Soluble starch	+	+	+
Glycerol	+	+	+
Meso erythritol	-	D	-
Ribitol	+	+	+
Xylitol	W/D	+	+
D-Glucitol	+	+	+
D-Mannitol	+	+	+
Galactitol	+	+	D
Myo-Inositol	W/D	W	W/D
Glucono $\delta$ lactone	D	+	+
2-Keto- $\delta$ -gluconate*	-	+	+
D-Gluconate	+	+	+
D-Glucuronate	-	W/D	-
D-Galacturonate	W/D	W/D	W/D
DL-Lactate	D	W/D	W/D
Succinate	+	+	+
Citrate	+	+	+
Methanol	W/D	W/D	W/D
Ethanol	D	W/D	+
Propane 1,2 diol	W	D	W
Butane 2,3 diol	-	V	W/D
Quinic acid	-	V	-
Saccharate	W/D	W/D	W

Galactonic acid	W/D	W/D	W
<b>Growth</b>			
<b>Temperature</b>			
35°C	+	+	+
37°C*	-	+	+
40°C	-	-	-
<b>Cycloheximide</b>			
0.01	+	+	+
0.1	+	+	+
<b>Glucose</b>			
50%	+	+	+
60%*	-	+	-
<b>Starch production</b>			
<b>Urea test</b>			
<b>DBB reaction</b>			
NaCl 10%	+	+	+
NaCl 16%	+	+	+
<b>Vitamins growth</b>			

Abbreviations: +, positive; -, negative; W: weak reaction; D, delayed reaction; W/D, weak and delayed reaction; V, variable reaction depending of the strain. In parenthesis, strains of each group that were tested. \* differing features.

Table S2: The ability to form biofilm presented as the average values of absorbance (A) at wavelength of 600 nm ± standard deviation (SD). All results are statistically significant if compared with *C. albicans* CBS 8758 (p<0.001, Student t-test). The significance levels if compared with *C. haemulonii* CBS 5149T are presented in the last column as p values. Results differ significantly when p<0.001 (\*), and no significant differences are observed when p>0.1 (\*\*).

<b>Strain code</b>	<b>Isolate</b>	<b>Biofilm (A<sub>600</sub> ± SD)</b>	<b>P value</b>
KCTC-17809	<i>Candida auris</i>	0.200 ± 0.047	0.1-0.05
KCTC-17810	<i>Candida auris</i>	0.238 ± 0.045	0.01-0.001
CNM-CL-7829W	<i>Candida duobushaemulonii</i>	0.076 ± 0.036	(*)
CNM-CL-7829P	<i>Candida duobushaemulonii</i>	0.107 ± 0.052	0.025-0.01
CBS-6915	<i>Candida duobushaemulonii</i>	0.188 ± 0.049	(**)
CBS-7798 <sup>T</sup>	<i>Candida duobushaemulonii</i>	0.074 ± 0.039	(*)
CBS-7799	<i>Candida duobushaemulonii</i>	0.085 ± 0.051	(*)
CBS-7800	<i>Candida duobushaemulonii</i>	0.077 ± 0.046	(*)
CBS-9754	<i>Candida duobushaemulonii</i>	0.074 ± 0.044	(*)
CNM-CL-7073	<i>Candida haemulonii var. vulnera</i>	0.114 ± 0.043	0.01-0.025
CNM-CL-7239 <sup>T</sup>	<i>Candida haemulonii var. vulnera</i>	0.194 ± 0.056	(**)
CNM-CL-7256	<i>Candida haemulonii var. vulnera</i>	0.107 ± 0.051	(*)
CNM-CL-7462	<i>Candida haemulonii var. vulnera</i>	0.114 ± 0.054	0.05-0.025
CNM-CL-3458	<i>Candida haemulonii</i>	0.182 ± 0.070	(**)
CNM-CL-4640	<i>Candida haemulonii</i>	0.120 ± 0.050	0.05-0.025
CNM-CL-4641	<i>Candida haemulonii</i>	0.134 ± 0.027	0.1-0.05
CNM-CL-4642	<i>Candida haemulonii</i>	0.098 ± 0.041	0.01-0.001
CNM-CL-6800	<i>Candida haemulonii</i>	0.104 ± 0.047	0.01-0.001
CNM-CL-7793	<i>Candida haemulonii</i>	0.111 ± 0.051	0.025-0.01
CBS-5149 <sup>T</sup>	<i>Candida haemulonii</i>	0.163 ± 0.047	--
CBS-5150	<i>Candida haemulonii</i>	0.112 ± 0.058	0.05-0.025
CBS-5468	<i>Candida haemulonii</i>	0.236 ± 0.084	0.025-0.01
CBS-6332	<i>Candida haemulonii</i>	0.122 ± 0.055	0.1-0.05
CBS-6590	<i>Candida haemulonii</i>	0.143 ± 0.052	(**)
CBS-7801	<i>Candida haemulonii</i>	0.141 ± 0.034	(**)
CBS-7802	<i>Candida haemulonii</i>	0.101 ± 0.034	0.01-0.001
CBS-10968	<i>Candida haemulonii</i>	0.137 ± 0.063	(**)
CBS-10969	<i>Candida haemulonii</i>	0.254 ± 0.056	(*)
CBS-10970	<i>Candida haemulonii</i>	0.113 ± 0.047	0.025-0.01
CBS-10971	<i>Candida haemulonii</i>	0.263 ± 0.052	(*)
CBS-10972	<i>Candida haemulonii</i>	0.271 ± 0.067	(*)
CBS-10973	<i>Candida haemulonii</i>	0.333 ± 0.060	(*)
CBS-10004 <sup>T</sup>	<i>Candida pseudohaemulonii</i>	0.095 ± 0.050	0.01-0.001
KCTC-17807	<i>Candida pseudohaemulonii</i>	0.240 ± 0.084	0.01-0.001
CBS 8758	<i>Candida albicans</i> SC5314	1.749 ± 0.084	(*)
CBS 861	<i>Candida glabrata</i>	0.732 ± 0.360	(*)
CBS 7987	<i>Candida dubliniensis</i>	0.354 ± 0.147	(*)

CBS 573	<i>Candida krusei</i>	0.286 ± 0.054	(*)
CBS 8072	<i>Candida tropicalis</i>	2.460 ± 0.036	(*)

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Table S3. Overview of MALDI-TOF MS Biotyper 3.0 identification log-scores of representatives of the *Candida haemulonii* complex.

Strain genus and species	No. strains tested	No. of correct species ID Log-score $\geq 2.0$	% species ID	No. of correct species ID log-score 1.7-1.999	% species ID	Total %
<i>Candida auris</i>	<b>4</b>	3	<b>75</b>	1	<b>25</b>	<b>100</b>
<i>Candida duobushaemulonii</i>	<b>7</b>	4	<b>57</b>	3	<b>43</b>	<b>100</b>
<i>Candida haemulonii</i>	<b>19</b>	18	<b>95</b>	1	<b>5</b>	<b>100</b>
<i>Candida haemulonii</i> var. <i>vulnera</i>	4	4	<b>100</b>	0	<b>0</b>	<b>100</b>
<i>Candida pseudohaemulonii</i>	<b>3</b>	2	<b>67</b>	1	<b>33</b>	<b>100</b>

Figure S1. Phylogenetic tree of the isolates included in the study obtained by using Maximum likelihood phylogenetic analyses and 2000 bootstrap simulations based on D1/D2 26S sequences.

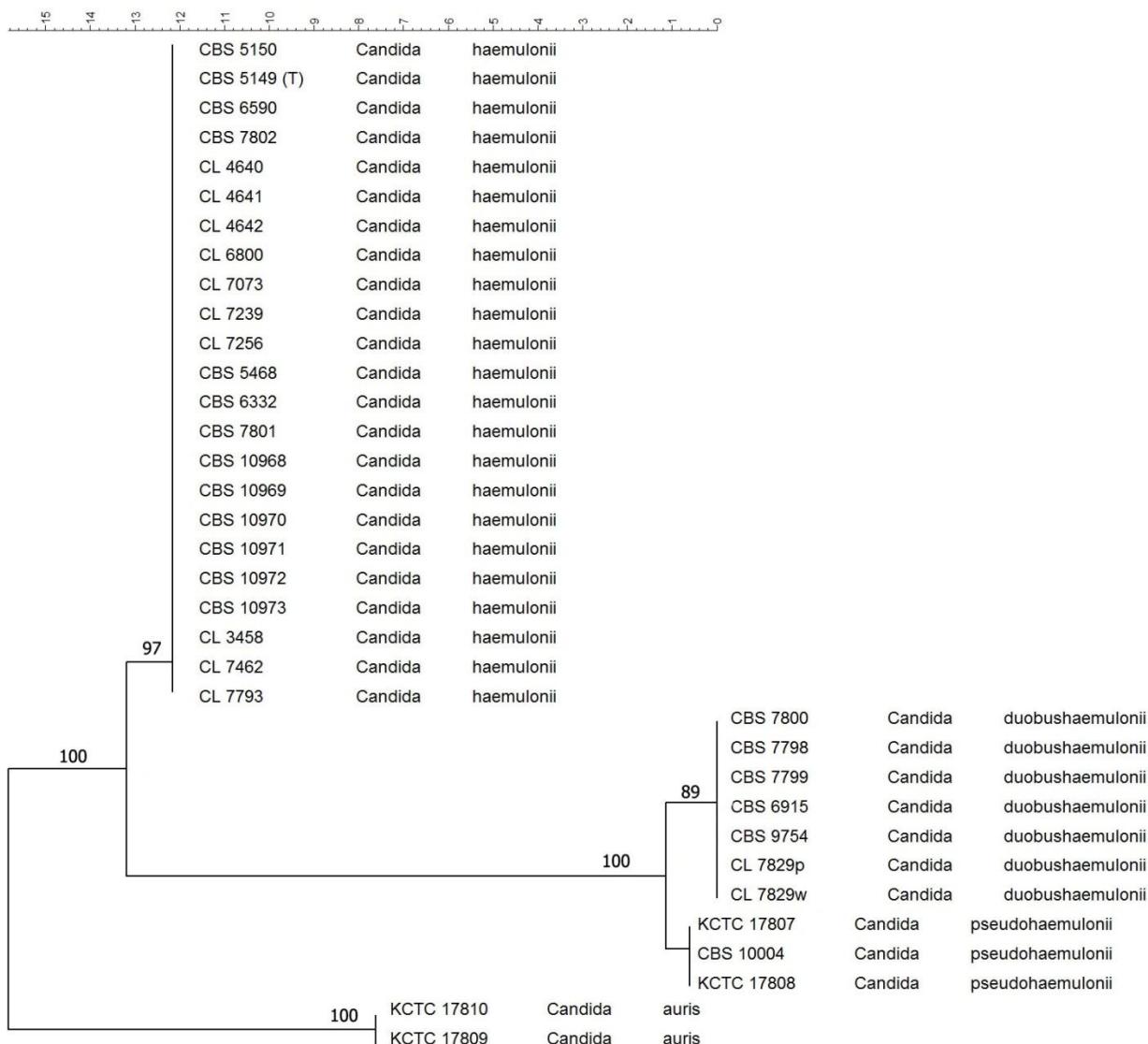


Figure S2. Phylogenetic tree of the isolates included in the study obtained by using Maximum likelihood phylogenetic analyses and 2000 bootstrap simulations based on RPB1 sequences.

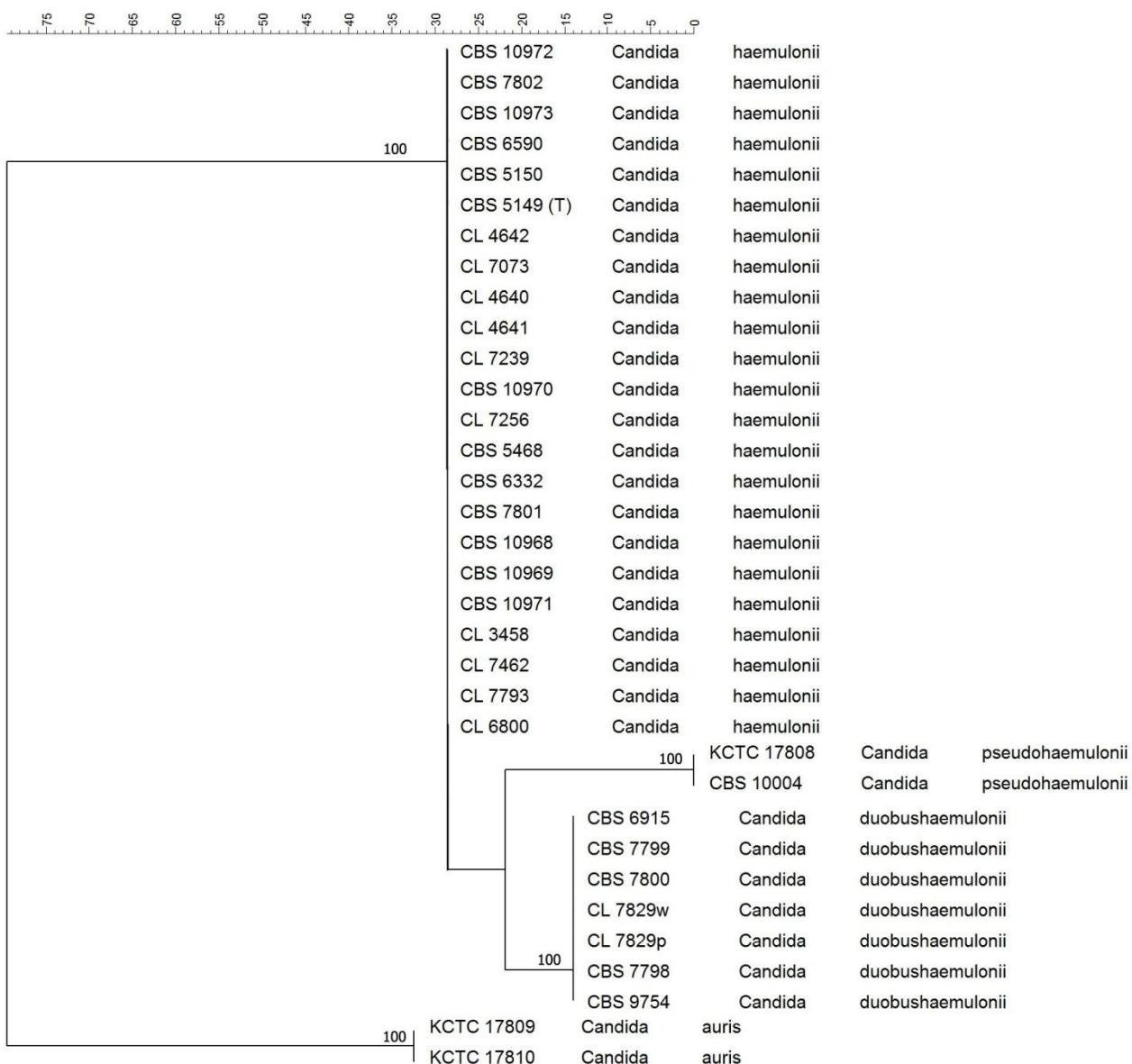


Figure S3. Phylogenetic tree of the isolates included in the study obtained by using Maximumlikelihood phylogenetic analyses and 2000 bootstrap simulations based on RPB2 sequences.

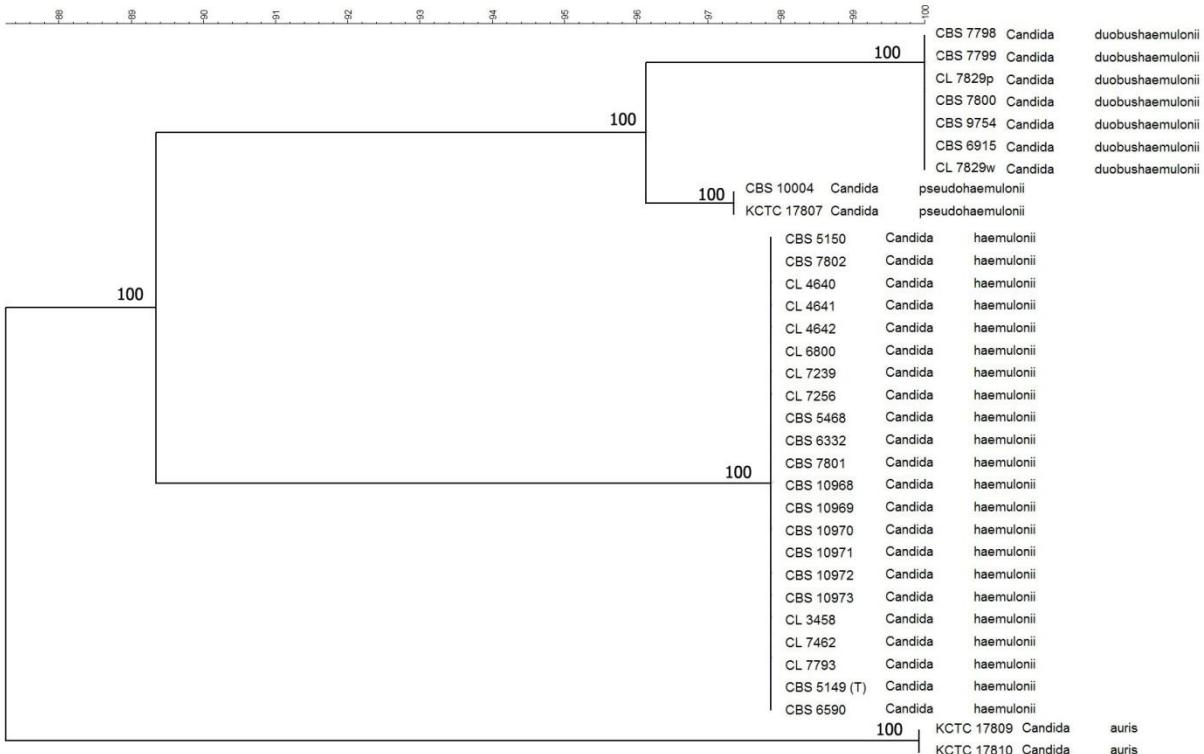


Figure S4. Artificial gel view of MALDI-TOF mass spectra obtained for type strains of the *C. haemulonii* complex species.

